REMARKS

Claims 1-24 are currently pending in the application. In an Office Action dated March 3, 2002 ("Office Action"), the Examiner objected to claim 11 and rejected claims 1-24 under 35 U.S.C. § 103(a) as being unpatentable over Guedalia, U.S. Patent No. 6,356,283 B1 ("Guedalia"). Applicants respectfully disagree with the examiner with respect to the above-mentioned objection. In the phrase "when the browser running on the client computer is capable of accepting display altering commands from a user while displaying a page," the noun "browser" is the obvious and grammatically correct subject of the verb "is." Nonetheless, in an effort to advance prosecution, Applicants have amended claim 11 to add commas to set off the phrase "running on the client computer" that modifies the noun "browser" so that the noun "browser" is starkly juxtaposed with the verb "is," for which it serves as the subject. Applicants respectfully traverse the 35 U.S.C. § 103(a) rejections of claims 1-24.

Applicants furnished a detailed summary of Applicants' claimed invention in the previous Amendment, filed October 8, 2002. Applicants, in the interest of brevity, refer the Examiner to that summary for background on the following arguments.

Please consider the emphasized elements of the following three independent claims:

> 1. A method for associating an active region with a corresponding position within an image included in a page displayed by a browser running on a client computer, the method comprising:
>
> sending a request by the browser to a server for a description of a page that includes a specification of the image and an associated client-side image map, the client-side image map specifying a shape, size, and location of the active region within the image and specifying actions to be performed in response to input events directed to the active region;
>
> *receiving from the server in response to the request a description of the requested page that includes an invocation of a viewer for displaying the image, the invocation including parameters that describe the image and the client-side image map;*
>
> *instantiating the viewer and passing to the viewer the parameters included in the invocation;*
>
> *storing by the viewer representations of active regions within the image in image-relative coordinates along with indications of the actions to be performed in response to input events directed to the active region; and*
>
> *when an input event is detected by the browser during display of the page,*
>
> *passing the input event by the browser to the viewer, and*

when the viewer determines that the input event was input to a position within the image corresponding to the active region, determining an action specified for performance in response to the input event to the active region and calling for performance of the determined action.

11. A method for serving a description of a page from a server to a browser running on a client computer that requests the page, the description of the page provided to the browser by the server containing an invocation of a viewer, the invocation including parameters that specify an image included in the page and an active region within the image, the method comprising:

receiving a request from the browser by the server for a description of the page that includes a specification of the image and an associated client-side image map, the client-side image map specifying a shape, size, and location of the active region within the image and that specifies actions to be performed in response to input events directed to the active region;

retrieving a description of the page;

determining the capabilities for viewing pages provided by the browser running on the client computer; and

when the browser, running on the client computer, is capable of accepting display altering commands from a user while displaying a page,

parsing the description of the page to find the specification of the image and the client-side image map included in the page,

substituting, in the description of the page, an invocation of a viewer for the specification of the image and the client-side image map included in the page, including in the invocation parameters that specify the image and the client-side image map, to create a transformed page description, and

sending the transformed page description to the browser.

18. A system for displaying a page that includes an image and an active region correlated with a particular portion of the image, the display of the page modifiable during the display of the page on a display device of a client computer such that the active region within the image remains correlated with the portion of the image, the system comprising:

a browser running on the client computer that displays the page;

a server that receives a request from the browser for a description of the page and that that provides a description of the page that *contains an invocation of a viewer, the invocation including parameters that specify an image included in the page and an active region within the image*; and

data structures on the client computer that store image-relative indications of the particular portion of the image associated with the active region and actions and actions to be performed in response to input events directed to the active region.

The invention claimed in independent claims 1, 11, and 18 relates to a client-side viewer, functionality representing an enhancement or addition to functionality commonly included in Internet browsers when the current Application was filed, and to client data structures, including a client-side image map. The client-side viewer is invoked by a client-side browser

according to an invocation inserted by a server into a page description sent by the server to the client-side browser. The client-side browser invokes the viewer to display the page in a manner that maintains a correspondence between active regions defined within the page and text and images included in the page.

Guedalia discloses a completely unrelated technology. Guedalia explicitly states, in lines 52-55 of column 4:

> A key feature of the present invention is that *it operates without the use of special client software, other than an Internet browser which is already resident on the client computer.* (emphasis added)

In other words, Guedalia explicitly states that a key feature of the technique disclosed in Guedalia is that no specialized client-side software is used, other than an Internet browser. By contrast, Applicants **clearly claim**, in the current application, a method and system in which the client's Internet browser instantiates a viewer as directed by an invocation included in a page description by a server. Guedalia explicitly identifies the absence of any specialized software as being a **key feature** of the disclosed technique. Thus, the current claims, including those that depend from the above-provided independent claims, cannot possibly be obvious in view of a single reference that fails to teach, mention, or suggest claim elements, and that, in fact, explicitly teaches away from the claimed invention.

Applicants clearly claim a system in which specialized client software stores representations of active regions within a page in image-relative coordinates. Guedalia's technique does not involve storage of image-relative coordinates on a client computer. Instead, the client computer furnishes to a server computer mouse-pointer coordinates (column 24, lines 31-32) which are simply relative to the outer boundary of the page displayed by the browser. In Guedalia's system, the server interprets the mouse-pointer coordinates with respect to images displayed within a web page. Note also that the only relative coordinates mentioned in Guedalia are coordinates describing regions, and these coordinates are relative only in the sense that the "coordinates are based on a relative scale from 0 to 1, where 1 corresponds to the full width or height" of the displayed web page (column 24, lines 14-22).

Guedelia employs standard, prior-art, display-relative mouse-pointer coordinates. This fact is abundantly clear when Figures 4 and 6 of Guedalia are considered.

In steps 74 and 76 of Figure 4, the client computer extracts mouse-pointer coordinates (relative to the display size of the web page on the client computer) and sends them to the server, which processes the mouse-pointer coordinates in step 80. This is a standard, prior-art server-side application, where the server manages all processing and interpretation of mouse coordinates using a server-side image map. It is the server, in Guedalia's system, that undertakes interpretation and processing of mouse events. The server is made aware of each mouse event.

By contrast, in Applicants' claimed system, the client-side enhanced viewer, flow-charted in Figure 7 and described in pseudocode, processes many commands and accordingly updates the display without server intervention. That is why the current application is entitled "DYNAMIC-ADAPTIVE CLIENT-SIDE IMAGE MAP" (emphasis added).

The Examiner has provided a lengthy analysis of the current claims with respect to Guedalia. Although Applicants appreciate the Examiner's efforts in providing a detailed analysis, the analysis is unfortunately inconsistent with what Guedalia discloses. The points of divergence between Guedalia's disclosed technique and the Examiner's interpretation of that technique are to numerous to address, and, frankly, unnecessary to address in view of the very basic, clearly claimed elements in the above-provided independent claims that are neither taught, mentioned, or suggested in Guedalia. Geudalia is a standard, prior-art, server-side image-map implementation, unrelated to Applicants' claimed invention. Nonetheless, a few examples may assist the Examiner in a further consideration of Guedalia with respect to the current application.

On page 3 of the Office Action, the Examiner maintains that Guedalia discloses "sending a request by the browser to a server for a description of a page that includes a specification of the image and size, and location of active region within the image and specifying actions to be performed in response to input events directed to the active region (figure 4, #70-72 ..." On the contrary, in steps 70-76 of Figure 4 in Guedalia, the client-side browser simply displays a web page, a user inputs a mouse click to the page, and the browser receives mouse-click events from the operating system and forwards them to the server computer. This is absolutely standard, prior-art HTML browsing that has been used as

long as HTML-compliant browsers have existed. There are no active regions, no image map, and no specifying of actions mentioned in these steps.

On page 4 of the Office Action, the Examiner states that "image maps enable a browser to extract the coordinates of the location of the mouse pointer when the user clicks on the mouse, and send those coordinates back to the server." This is not at all what image maps do, and not even remotely descriptive of how computers operate. Mouse-pointer coordinates are device-relative coordinates, commonly *x,y* coordinates within an orthogonal coordinate system superimposed over the display screen. When a user moves a mouse, and clicks the mouse, it is the operating system of the computer that receives electronic signals from the mouse and moves a display cursor to reflect the mouse movement on the display. It is the operating system that receives the electronic signals generated when a user clicks the mouse, and it is the operating system that translates these electronic signals into a mouse-click event that is then passed to the browser. The browser can then furnish display-relative coordinates to the server by converting the absolute *x,y* display coordinates to coordinates relative to the *x,y* coordinates for two diagonally opposed corners of the web page displayed by the browser. Image maps have nothing to do with this fundamental process. Instead, in Guedalia, a server-side image map is employed to correlate the mouse coordinates with whatever is displayed on the web page.

Consider the definition of image maps provided in the current application, beginning on line 7 of page 2:

> The designation of active regions, and the association of actions with active regions, is accomplished through the use of server-side image maps and client-side image maps. *Image maps can be thought of as the superposition of an abstract template over an image included on the web page, with the abstract template containing descriptions of the size, shape, and location of each active region as well as an association between the active region and an action.* **Server-side image maps are implemented on a server computer, requiring a browser running on a client computer receiving the web page to transmit input events during display of the web page back to the server computer, followed by transmission of responses from the server computer to the client computer that facilitate any actions invoked by user input.** *Client-side image maps, by contrast, are implemented, at run time, by web browsers, or by viewers invoked by web browsers, on client computers. Input to displayed images associated with client-side image maps thus does not incur the extra Internet traffic incurred in displaying images associated with server-side image maps.* (emphasis added)

Hopefully, it will be clear to the Examiner that Guedalia simply discloses a server-side image-map implementation. The above underlined passage fully described what Guedalia discloses. The final, italicized sentence describes the technical domain relevant to Applicants' claimed invention – namely client-side image maps. Applicants' invention relates to making client-side image maps dynamic and adaptive, so that the client-side image map defining active regions displayed within a web page is properly maintained when the display is altered by client-side opertations.

In the first set of rejection, the Examiner cited completely unrelated art. In the current Office Action, the Examiner has cited a reference that discloses nothing more than the prior-art type of systems described by the Applicants in the Background of the Invention section. Applicants' representative would be most willing to discuss the technical areas to which the current application is relevant with the Examiner by phone, if that would assist the Examiner in formulating an understanding of the current claims. Again, Applicants wish to emphasize that the clearly claimed invention relates to dynamic, adaptive *client-side* image maps displayed by a viewer, and not to static client-side image maps, and most emphatically not to server-side image maps and server-based mouse event interpretation.

All of the claims remaining in the application are clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
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